on the bare ground, and that their colour would probably resemble that of the surrounding earth and stone.

We failed to find the eggs that day, but about a fortnight later Mr. Tate happened to be walking over the same ground and found a single egg. We went together the next day, and put up the bird again. There was no difficulty in identifying it as *Caprimulgus albicollis*. There was still only one egg, laid in a slight depression in the ground, close to a stump and under the shade of a tuft of leaves.

The egg differs from that of *Caprimulgus europæus* in having far more red about it, both in the ground tint and in the mottling. Indeed most of the colouring is in shades of salmon colour and reddish brown. There are a few gray marks towards the larger end. The egg is smaller than that of the European night jar. By reason of its reddish colour it is easy to distinguish the egg as it lies on the ground. This is not the case with the European species.

Dr. Leotaud in his book on the birds of Trinidad describes the eggs of this species as white. It may be that he wrote his description from a pair of eggs in which no colouring matter had been deposited. This accident, it is well known, may happen to any egg from disease or defect in the mother bird.

I have heard of other eggs of *Caprimulgus albicollis* at Maraval, and they have been described as being of the colour of the egg now shown. The usual number of eggs is two as in other members of the Goatsucker family.

1st June, 1894.

NOTES ON THE CACAO BEETLE

(Steirostoma depressum)

By A. B. Carr.

THIS beetle, which is known to the Spanish peons as *Congoroche*, belongs to the Longicornes. In its younger stages it lives in trees, especially in cacao trees, and as of late years its numbers seem to have increased, I think a few notes on its life history and the means of combating it would be interesting to the Members of the Club, and useful to Cacao Planters.

The larval stage: The egg is generally laid about the month of February or March. The places selected for this purpose being either some little crevices in the bark of the tree or in its fork; or in a wound made in trimming. The larva when first

hatched is small (about $\frac{1}{4}''$ long) growing rapidly until it reaches a length of $1\frac{1}{2}$ to 2 inches, the latter length being but seldom seen, as at that stage it burrows a hole into the heart of the tree, when and where the most serious trouble begins. The heart is followed for about four inches to six inches when after some weeks the insect having undergone its metamorphosis issues forth as the perfect beetle.

THE PERFECT INSECT: The beetle is particularly fond of soft and thick-barked trees, such as the wild Chataigne (*Pachira aquatica*, Aubl., this is it's favorite resort) Forest Mahoe (*Sterculia caribæa*, R. Br.) Cannon ball tree (*Couroupito guianensis* Aubl.) and our cultivated cacao. They do not seem to destroy any of the forest trees named, probably from the fact of their being attacked when fairly well grown, but unfortunately for the planter, when the female beetle resorts to the cacao groves, she selects the young, soft and juicy trees (say those from two to six years old), with the result that they are killed if not attended to. While the grub carries on its work of distruction *under* the bark of the tree, the perfect insect eats round the bark, say at a depth of $1/16''$ depriving the plant of a good deal of its vitality. She first of all eats systematically along and around each branch, generally beginning at the fork and eating upwards to the tops of the branches. She spends most of her time on one tree, and if not caught, will move on to the next nearest, and so on *ad infinitum* if left to her own sweet pleasure. The dry season is particularly favourable to the beetle, as during that time it lays its eggs. It is curious how fond the beetle is of returning to any plant that, through some chance, escapes destruction after its first attack. It is known to select such trees in preference to any other. This I suppose is due to the sweet gum which flows from recent wounds and which, as is well known possesses some peculiar attraction to the beetle. The months in which this pest is at its worst are February to May, both inclusive. The flight of the beetle is very short about 20 yards and slow, so that it can be easily caught whenever seen. Following trimmings of the Bucaré Immortel, the ravages made by it are well marked, there being at such a period at least twice the usual number of trees affected. It is therefore necessary for the planter to have his trees frequently examined when the trimming of the Immortels is over.

TREATMENT: The beetle seems to have but few natural enemies: I have noticed only the Cacao-pickers, very wrongly called Mangeur de Cacao, the Tick-bird or Merle Corbeau and the big-billed Qu'est-ce-qu'il-dit. Ants seem to kill the young grubs. Heavy rains are an agent in destroying the larvæ before they get under the bark. In the dry season hand-picking is very useful. The presence of the grub can always be known by the frass (which in entomology, means the debris of the stems and bark ejected

by the beetle) protruding from the stem. The grub can then be cut out, and a dressing of coal tar put on the wound so made. In fact a dressing of coal tar should always be put on cacao and shade trees after they have been pruned, for recent pruning always attracts the beetle. If the beetle is too deep in the stem of the tree to be cut out conveniently, a solution of cyanide of potassium and water (1 to 20 parts) is very effective when injected into the burrows. Failing cyanide, kerosine oil and common soap (1 to 5 parts) answers well.

1st June, 1894.

THE TRINIDAD SPECIES OF PERIPATUS.

TRINIDAD Peripati have frequently been referred to at Club Meetings but as there appears to be considerable confusion amongst the members with regard to their nomenclature it was thought that the following description by Professor Adam Sedgwick, M.A., F.R.S., would be interesting as well as useful :—

"Dr. J. v. Kennel found two distinct species of Peripatus in Trinidad; one of these he calls *P. Edwardsii* and the other *P. torquatus*. His description of both is unfortunately extremely meagre."

The species which he calls *Edwardsii* possesses twenty-eight pairs of legs. The generative opening is between the legs of the penultimate pair, and the generative organs present the characters of the Neotropical species. Dr. v. Kennel was kind enough to send me two of this species in spirit, and I am able to supplement his description. One of these specimens had 31 pairs of legs and the other 30, from which it appears that Kennel, like so many other zoologists who have examined *Peripatus*, has not been very careful in counting the legs. The dorsal surface was of a chocolate colour, the ventral surface being a light brown. The papillæ and ridges of the skin presented the features characteristic of the Neotropical species. The bases of the primary papillæ are conical as in *demeraranus*. The jaws also presented no points of difference from those of the species from Caracas, excepting that possibly the number of minor teeth was rather larger: in one I found as many as eleven.

I think there can be no doubt that this is a distinct species and I propose to call it and define it as follows :—

Peripatus trinidadensis (Edwardsii, v. Kennel). Peripatus with 28 to 31 pairs of ambulatory legs, and a large number of